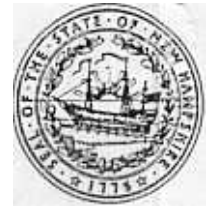




State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095
(603) 271-3406 FAX (603) 271-7894



April 22, 2002
Letter of Deficiency
DAM #009.14

Mr. Walter Neff
34 Main Street
Antrim, NH 03440

RE: Great Brook Handle Shop, Antrim

Dear Ms. Neff:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that plays a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on August 9, 2001. During this visual inspection and/or file review, the following deficiencies were observed:

The hydrologic analysis indicated that at the peak of the design storm the dam would be overtopped by more than 1 foot;

2. The timber crib spillway is in poor condition. The top crossbeam appeared to be bowed along the length of the beam. It should be noted that similar conditions existed in 1983 and in 1995., Additionally, substantial leaking was observed throughout the timber crib spillway with a prominent area of leaking observed in the left corner between the timber crib spillway and the concrete cutoff wall;
3. There was a longitudinal crack in the left corner of the concrete cutoff wall and the Route 202 retaining/cutoff wall;
4. There was spalling concrete along the upstream concrete face of the dam at the normal waterline on the left side of the low-level outlet of the old penstock area. Additionally, the concrete was spalling on both the left and right supports to the old penstock area;
- 5.

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DES believes that the above deficiencies can be corrected by performing the following items prior to the indicated schedule:

October 1, 2002:

1. Due to the restrictions of the culvert below Route 202 it would not be feasible to increase the capacity of the dam to support the design storm with 1 foot of freeboard. Thus a plan should be formulated to repair the low-level outlet (old penstock) to the dam and to support each abutment for overtopping possibly with large size riprap. The plan should include a completion date for all repairs by December 1, 2003;
2. Plan a draw down of the impoundment and investigate the stability of the timber crib section. Supply to our office a plan for repair/replacement as may be necessary;
3. As part of the draw down investigate the longitudinal crack in the left corner of the concrete cutoff wall and the Route 202 retaining/cutoff wall and repair as necessary;
4. While the impoundment is drawn down repair the spalling concrete along the upstream concrete face of the dam at the normal waterline on the left side of the low-level outlet of the old penstock area and on the supports to the old penstock area;
5. Remove the medium size tree adjacent to the end of the left concrete retaining/cutoff wall running along Route 202;
6. Report, to our office, on the possible origin of the minor seepage observed through the masonry stonewall below the adjacent garage in the area of the existing abandoned power generator. On a continual basis monitor the seepage and report to our office if conditions deteriorate rapidly; and

Prepare and submit to the DES a written operational procedure plan. The plan should describe the control of impoundment levels, monitoring and maintenance procedures, and identify emergency contact personnel.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

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If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the top of the previous page.

Sincerely,

COPY 

Dale F. Guinn, P.E.
Dam Safety Engineer

Attachments Guideline for an O&M plan, DB8, DB13

cc: Gretchen Rule ✓

Town of Antrim

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DFG/was/h:/safety/wendy/lod/009-14lod.doc